

REMARKS

Favorable reconsideration of the subject application is respectfully requested in view of the above amendments and the following remarks. Following the above amendments, claims 1, 4, 5, 8, 11-13, 15-18, 21, 24 and 25 are under consideration, with claim 1 being in independent format.

Claims 2, 3, 6, 7, 9, 19, 20, 22, 23 and 28 have been cancelled from the application. All the pending claims have been amended to recite transgenic plant cells. Support for this amendment may be found in cancelled claim 23 and throughout the specification as originally filed. Claim 1 has been amended to recite that the transgenic plant cell an expression cassette that comprises a nucleic acid molecule that includes either: (i) SEQ ID NO: 1 and SEQ ID NO: 3, SEQ ID NO: 1 and SEQ ID NO: 5, or (iii) SEQ ID NO: 1, SEQ ID NO: 3 and SEQ ID NO: 5. Support for this amendment can be found, for example, at page 5, lines 20-30 of the specification as originally filed, and in originally filed claim 15. In addition, claim 1 has been amended to remove reference to sequences that hybridize to SEQ ID NO: 1, 3, and/or 5, to correct minor errors in the claim language, and to replace reference to degenerate sequences to sequences that encode the same amino acid sequences as the specifically recited SEQ ID NOs. Applicants note that the amino acid sequences encoded by SEQ ID NO: 1, 3 and 5 are provided in SEQ ID NO: 2, 4 and 6, respectively. Claim 13 has been amended in a similar manner to claim 1.

Claim 12 has been amended to remove reference to sequences that hybridize to SEQ ID NO: 1 and to replace reference to sequences that are degenerate to SEQ ID NO: 1 with reference to sequences that encode the same amino acid sequences as SEQ ID NO: 1. Claim 15 has been amended to remove language now included in claim 1. Claim 24 has been amended to depend from claim 1. Withdrawn claim 26 has been amended to correspond to amended claim 1 and to conform the claim to US practice.

It is urged that support for all the above amendments can be found throughout the specification and claims as originally filed, and that none of the amendments constitute new matter or raise new issues for consideration. Applicants specifically reserve the right to pursue claims to any subject matter cancelled by the above amendments in a related application.

Claim Objections

Claim 9 was objected to as failing to further limit the subject matter of claim 8. This claim has been cancelled from the application.

Double Patenting

The Examiner states that claims 13, 19 and 28 are substantial duplicates of claims 12, 15 and 25, respectively. Applicants believe that this objection is moot in view of the above amendments.

Claim Rejections under 35 USC §112, first paragraph

Claims 1-5, 8, 9, 11-13, 15-19, 21-25 and 28 stand rejected under 35 USC §112, first paragraph, as lacking an enabling disclosure. Specifically, the Examiner asserts that the application does not enable sequences that hybridize to SEQ ID NO: 1 or that are degenerate to SEQ ID NO: 1.

While the applicants strongly disagree with the Examiner's position. However, in order to expedite allowance, claims 1, 12 and 13 have been amended to remove reference to sequences that hybridize to the recited SEQ ID NOs. and to replace the reference to degenerate sequences with reference to sequences that encode the same amino acid sequences as the recited SEQ ID NOs.

Applicants submit that one of skill in the art, on being presented with the instant specification, would clearly be able to make and use the presently claimed subject matter, and that this rejection of claims 1-5, 8, 9, 11-13, 15-19, 21-25 and 28 under 35 USC §112, first paragraph, may thus be properly withdrawn.

Claims 11-13 and 21 stand rejected under 35 USC §112, first paragraph, as lacking an adequate written description. Specifically, the Examiner asserts that the specification does not describe any sequences other than SEQ ID NO: 1 that lead to the down-regulation of glucosyltransferase activity.

Following the above amendments, claims 11-13 and 21 are drawn to plant cells having reduced glucosyltransferase activity due to the presence of a nucleic acid molecule comprising (i) SEQ ID NO: 1 and SEQ ID NO: 3, (ii) SEQ ID NO: 1 and SEQ ID NO: 5, (iii) SEQ ID NO: 1, SEQ ID NO: 3 and SEQ ID NO: 5, or (iv) sequences that encode the same amino acid sequences as the sequences recited in (i) – (iii).

It is urged that one of skill in the art would appreciate that the inventors were indeed in possession of the presently claimed invention at the time the application was filed, and that the rejection of claims 11-13 and 21 under 35 USC §112, first paragraph, as lacking an adequate written description may thus be properly withdrawn.

Claim Rejections under 35 USC §112, first paragraph

Claims 1-9, 11-13, 15-19, 21-25 and 28 stand rejected under 35 USC §112, second paragraph, as being indefinite. Specifically, the Examiner has objected to the term “a nucleic acid sequence which hybridizes to the sequence in (i) above and which glucosylates at least one monolignol” in claim 1, and to the term “wherein said monolignol is coniferyl alcohol” in claim 3. As noted above, claim 1 has been amended to remove reference to sequences that hybridize to the specifically recited SEQ ID NOs, and claim 2 has been cancelled from the application, thereby rendering this rejection moot.

It is submitted that the amended claims fully satisfy the requirements of 35 USC §112, second paragraph, and that this rejection of claims 1-9, 11-13, 15-19, 21-25 and 28 may be properly withdrawn.

Claim Rejections under 35 USC §102

Claims 1-3 and 5-7 stand rejected under 35 USC §102(b) as being anticipated by Reiss et al. (US Patent 6,583,336). Specifically, the Examiner asserts that Reiss et al. teach a transgenic Arabidopsis cell that would inherently comprise SEQ ID NO: 1.

Claims 2 and 3 have been cancelled from the application. While the applicants do not acquiesce in this rejection, independent claim 1 has been amended to recite that the transgenic plant cell comprises a expression cassette which includes the recited nucleic acid sequences. It is

submitted that Reiss et al. neither teach or suggest a transgenic plant cell including such an expression cassette, and that this rejection of claims 1 and 5-7 under 35 USC §102(b) may thus be properly withdrawn.

Claims 1, 4, 5, 8, 9, 11-13, 15-19, 21-25 and 28 stand rejected under 35 USC §102(b) as being anticipated by Bowles et al. (WO 01/59140). Specifically, the Examiner asserts that Bowles et al. teach a transgenic plant comprising a nucleic acid molecule that would inherently hybridize to SEQ ID NO: 1.

As noted above, the pending claims have been amended to remove reference to sequences that hybridize to the specifically recited SEQ ID NOs. Applicants submit that Bowles et al. do not teach or suggest the presently claimed subject matter, and that this rejection of the claims under 35 USC §102(b) may thus be properly withdrawn.

Claim Rejections under 35 USC §103

Claims 1-9, 11-13, 15-19, 21-25 and 28 stand rejected under 35 USC §103(a) as being unpatentable over Bowles et al. (WO 01/59140) in view of Cheuk et al. (Genbank Accession AY049277). Specifically, the Examiner asserts that Bowles et al. teach the claimed invention with the exception of SEQ ID NO: 1, and that Cheuk et al. teach a sequence that is 100% identical to SEQ ID NO: 1.

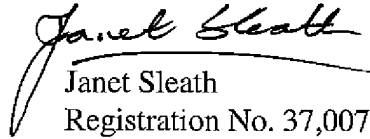
Following the above amendments, the presently pending claims are drawn to transgenic plant cells comprising an expression cassette, wherein the cassette comprises specific combinations of nucleic acid sequences, namely SEQ ID NOs. 1 and 3, SEQ ID NOs. 1 and 5, or SEQ ID NOs. 1, 3 and 5, or nucleic acid sequences that encode the same amino acid sequences as these combinations. Neither Bowles et al. nor Cheuk et al. teach or suggest the sequences of SEQ ID NO: 3 and 5. It is therefore submitted that combining these two references would not have rendered the presently claimed invention obvious to one of skill in the art at the time the present invention was made, and that the rejection of the claims under 35 USC §103(a) may be properly withdrawn.

Concluding Remarks

A request for a two month extension of time is submitted herewith.

Every effort has been made to put the claims in condition for allowance. Should the Examiner have any further concerns regarding the subject application, he is invited to telephone the undersigned at 206.382.1191.

Respectfully submitted,


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